

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
21 December 2000 (21.12.2000)

PCT

(10) International Publication Number  
**WO 00/76406 A1**

(51) International Patent Classification<sup>7</sup>: **A61B 17/22**

(21) International Application Number: **PCT/US00/16471**

(22) International Filing Date: **14 June 2000 (14.06.2000)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:  
**60/139,124 14 June 1999 (14.06.1999) US**

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(81) Designated States (national): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.**

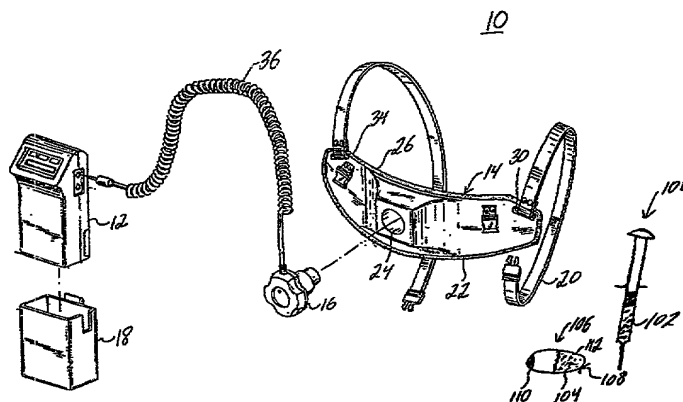
(84) Designated States (regional): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).**

Published:

— With international search report.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **METHOD AND KIT FOR CAVITATION-INDUCED TISSUE HEALING WITH LOW INTENSITY ULTRASOUND**



(57) Abstract: A method and kit for therapeutically treating bone and tissue injuries using ultrasound. The method includes the steps of introducing an ultrasound contrast agent into the patient, preferably, the patient's blood stream, and impinging ultrasonic waves in proximity to an injury. The ultrasound contrast agent facilitate in lowering the cavitation threshold, i.e., the energy required for the cavitation, to a level attainable by the ultrasonic waves to induce acoustic intracellular microstreaming to accelerate the healing process. The method further includes the steps of maintaining the resonance bubble frequency of the microbubbles of the ultrasound contrast agent from 0.5 MHz to 10 MHz; maintaining the acoustic transmit frequency of the ultrasound waves from 10 kHz to 10 MHz; and maintaining the acoustic spatial average-temporal average (SATA) intensity of the ultrasonic waves from 5 to 500 mW/cm<sup>2</sup>. The kit of the invention includes at least one ergonomically constructed ultrasonic transducer (16) configured to cooperate with a placement module (14) for placement in proximity to an injury and a portable, ergonomically constructed main operating unit (12) constructed to fit within a pouch (18) worn by the patient.

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